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Natural
Resources
Conservation
Service

Montana
Basin Outlook Report
January 1, 1997

Basin Outlook Reports and Federal - State - Private Cooperative Snow Surveys

For more water supply and resource management information, contact:
See Attached List

How forecasts are made

Most of the annual streamflow in the Western United States originates as snowfall that has accumulated high in the mountains during winter and early spring. As the snowpack accumulates, hydrologists estimate the runoff that will occur when it melts. Predictions are based on careful measurements of snow water equivalent at selected index points. Precipitation, temperature, soil moisture and antecedent streamflow data are combined with snowpack data to prepare runoff forecasts. Streamflow forecasts are coordinated by Natural Resources Conservation Service and National Weather Service hydrologists. This report presents a comprehensive picture of water supply conditions for areas dependent upon surface runoff. It includes selected streamflow forecasts, summarized snowpack and precipitation data, reservoir storage data, and narratives describing current conditions.

Snowpack data are obtained by using a combination of manual and automated SNOTEL measurement methods. Manual readings of snow depth and water equivalent are taken at locations called snow courses on a monthly or semi-monthly schedule during the winter. In addition, snow water equivalent, precipitation and temperature are monitored on a daily basis and transmitted via meteor burst telemetry to central data collection facilities. Both monthly and daily data are used to project snowmelt runoff.

Forecast uncertainty originates from two sources: (1) uncertainty of future hydrologic and climatic conditions, and (2) error in the forecasting procedure. To express the uncertainty in the most probable forecast, four additional forecasts are provided. The actual streamflow can be expected to exceed the most probable forecast 50% of the time. Similarly, the actual streamflow volume can be expected to exceed the 90% forecast volume 90% of the time. The same is true for the 70%, 30%, and 10% forecasts. Generally, the 90% and 70% forecasts reflect drier than normal hydrologic and climatic conditions; the 30% and 10% forecasts reflect wetter than normal conditions. As the forecast season progresses, a greater portion of the future hydrologic and climatic uncertainty will become known and the additional forecasts will move closer to the most probable forecast.

United States Department of Agriculture
Natural Resources Conservation Service (formerly the Soil Conservation Service)
Bozeman, Montana

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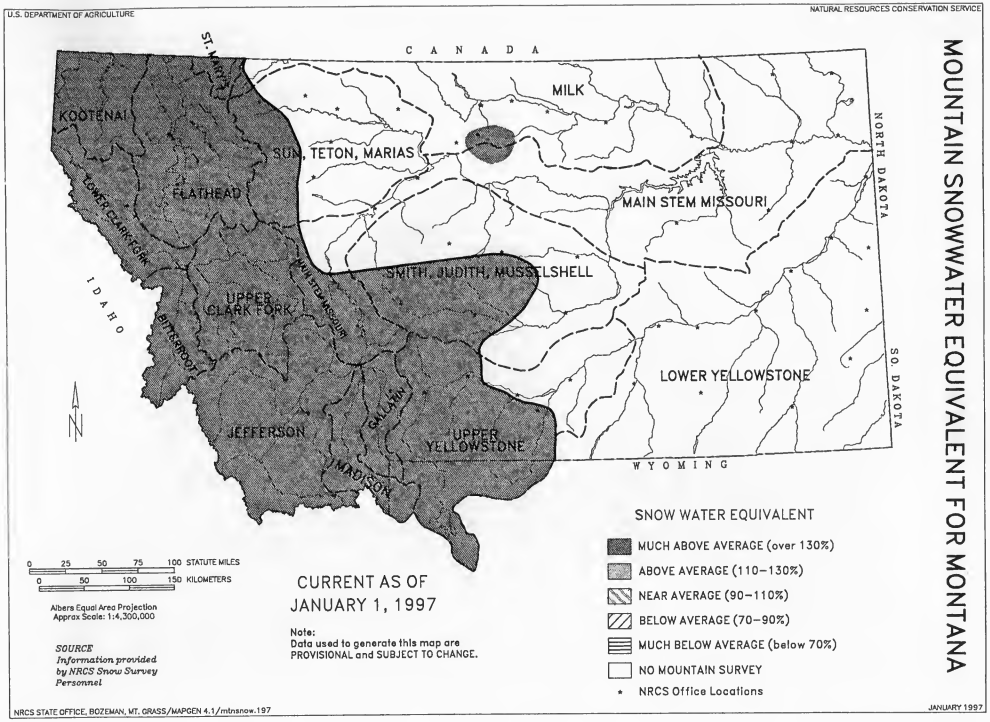
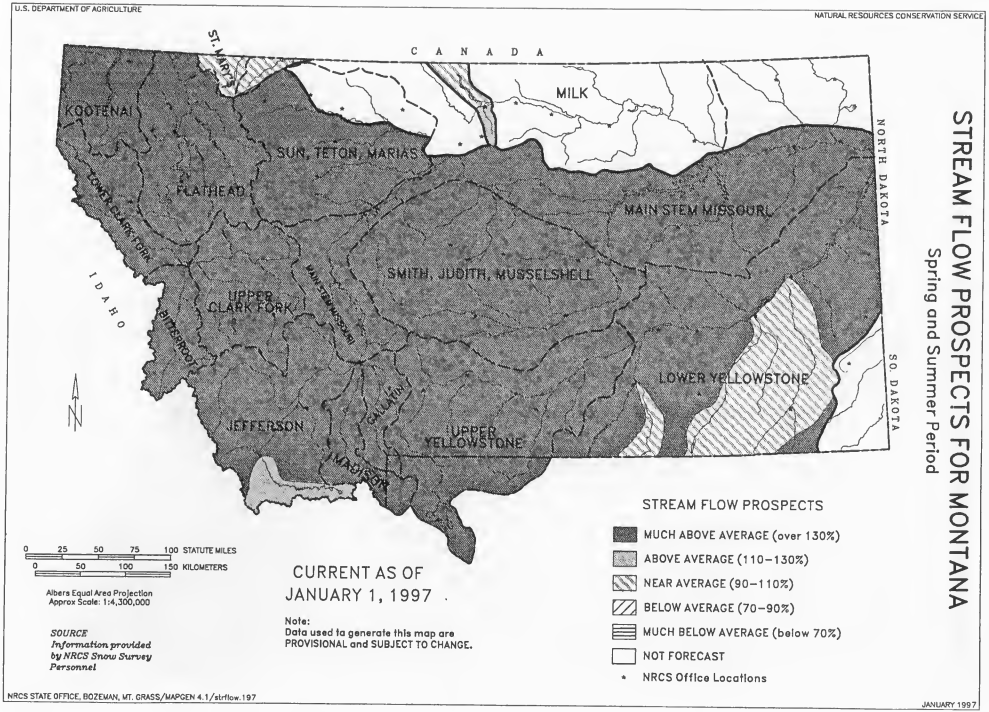
1/2/97


U.S. DEPARTMENT OF AGRICULTURE
NATURAL RESOURCES CONSERVATION SERVICE
MOUNTAIN SNOWWATER EQUIVALENT FOR MONTANA
CANADA
ST. MARY
MILK
KOOTENAI
SUN, TETON, MARIAS
FLATHEAD
NORTH DAKOTA
MAIN STEM MISSOURI
LOWER CLARK FORK
SMITH, JUDITH, MUSSELSHELL
MAIN STEM MISSOURI
IDAHO
UPPER CLARK FORK
BITTERROOT
LOWER YELLOWSTONE
SO. DAKOTA
GALLATIN
JEFFERSON
UPPER YELLOWSTONE
MADISON
WYOMING
0 25 50 75 100 STATUTE MILES
0 50 100 150 KILOMETERS
Albers Equal Area Projection
Approx Scale: 1:4,300,000
SOURCE
Information provided by NRCS Snow Survey Personnel
CURRENT AS OF JANUARY 1, 1997
Note:
Data used to generate this map are PROVISIONAL and SUBJECT TO CHANGE.
SNOW WATER EQUIVALENT
MUCH ABOVE AVERAGE (over 130%)
ABOVE AVERAGE (110–130%)
NEAR AVERAGE (90–110%)
BELOW AVERAGE (70–90%)
MUCH BELOW AVERAGE (below 70%)
NO MOUNTAIN SURVEY
NRCS Office Locations
NRCS STATE OFFICE, BOZEMAN, MT. GRASS/MAPGEN 4.1/mtnsnow.197
JANUARY 1997


U.S. DEPARTMENT OF AGRICULTURE
NATURAL RESOURCES CONSERVATION SERVICE
STREAM FLOW PROSPECTS FOR MONTANA
Spring and Summer Period
CANADA
ST. MARY
MILK
KOOTENAI
SUN, TETON, MARIAS
FLATHEAD
MAIN STEM MISSOURI
NORTH DAKOTA
SO. DAKOTA
LOWER CLARK FORK
IDAHO
SMITH, JUDITH, MUSSELSHELL
UPPER CLARK FORK
BITTERROOT
MAIN STEM MISSOURI
GALLATIN
LOWER YELLOWSTONE
JEFFERSON
MADISON
UPPER YELLOWSTONE
N
0 25 50 75 100 STATUTE MILES
0 50 100 150 KILOMETERS
Albers Equal Area Projection
Approx Scale: 1:4,300,000
SOURCE
Information provided by NRCS Snow Survey Personnel
CURRENT AS OF JANUARY 1, 1997
Note:
Data used to generate this map are PROVISIONAL and SUBJECT TO CHANGE.
STREAM FLOW PROSPECTS
MUCH ABOVE AVERAGE (over 130%)
ABOVE AVERAGE (110–130%)
NEAR AVERAGE (90–110%)
BELOW AVERAGE (70–90%)
MUCH BELOW AVERAGE (below 70%)
NOT FORECAST
NRCS Office Locations
NRCS STATE OFFICE, BOZEMAN, MT. GRASS/MAPGEN 4.1/strflow.197
JANUARY 1997

BASIN SUMMARY OF SNOW COURSE DATA

JANUARY 1997

SNOW COURSE	ELEVATION	DATE	SNOW DEPTH	WATER CONTENT	LAST YEAR	AVERAGE 1961-90
MONTANA						
ALBRO LAKE PILLOW	8300	1/01/97	---	17.1	--	--
ASHLEY LAKE	4000	1/01/97	---	5.8E	1.8	2.4
ASHLEY DIVIDE	4820	1/01/97	---	6.6E	2.0	3.4
BADGER PASS PILLOW	6900	1/01/97	---	23.4	17.3	14.2
BANFIELD MTN PILLOW	5600	1/01/97	---	18.4	7.8	9.0
BARKER LAKES PILLOW	8250	1/01/97	---	10.7	8.2	6.8
BASIN CREEK PILLOW	7180	1/01/97	---	5.2	3.2	3.6
BASSOO PEAK	5150	1/03/97	42	12.0	--	--
BEAGLE SPGS PILLOW	8850	1/01/97	---	6.3	4.3	3.7
BEAVER CREEK PILLOW	7850	1/01/97	---	16.9	9.3	7.9
BISSON CREEK PILLOW	4920	1/01/97	---	11.1	2.5	3.9
BLACK BEAR PILLOW	7950	1/01/97	---	38.6	20.8	15.6
BLACK PINE PILLOW	7100	1/01/97	---	9.4	7.8	4.9
BLACKTAIL	5650	1/01/97	---	13.1E	4.4	5.8
BLOODY DICK PILLOW	7550	1/01/97	---	10.9	8.4	5.1
BOULDER MTN PILLOW	7950	1/01/97	---	16.3	9.6	8.4
BOX CANYON PILLOW	6700	1/01/97	---	8.2	5.1	4.8
BOXELDER CREEK	5100	12/30/96	26	4.9	.5	4.3
BRACKETT CR PILLOW	7320	1/01/97	---	15.2	11.6	8.5
BRIDGER BOWL	7250	12/31/96	65	20.0	10.6	10.6
CALVERT CR PILLOW	6430	1/01/97	---	10.6	4.8	4.1
CARROT BASIN PILLOW	9000	1/01/97	---	24.5	16.7	11.9
CHESSMAN RESERVOIR	6200	12/31/96	14	2.8	.0	1.5
CLOVER MDW PILLOW	8800	1/01/97	---	10.3	10.4	7.9
COLE CREEK PILLOW	7850	1/01/97	---	9.8	10.9	7.7
COMBINATION PILLOW	5600	1/01/97	---	5.3	1.1	2.3
COPPER BOTTOM PILLOW	5200	1/01/97	---	12.2	4.7	4.7
COPPER CAMP PILLOW	6950	1/01/97	---	24.2	17.9	13.6
COYOTE HILL	4200	12/30/96	47	10.8	--	4.1
CRYSTAL LAKE PILLOW	6050	1/01/97	---	7.8	2.3	5.3
DAISY PEAK	7600	1/03/97	35	8.2	3.4	5.1
DAISY PEAK	7600	1/03/97	35	8.2	3.4	5.1
DALY CREEK PILLOW	5780	1/01/97	---	10.7	5.8	5.3
DARKHORSE LK. PILLOW	8700	1/01/97	---	22.1	20.4	15.5
DEADMAN CR PILLOW	6450	1/01/97	---	8.4	3.7	4.4
DISCOVERY BASIN	7050	12/30/96	44	8.9	6.2	4.4
DIVIDE PILLOW	7800	1/01/97	---	8.0	4.7	4.8
DIX HILL	6400	12/29/96	40	9.8	3.2	5.0
DUPUYER CREEK PILLOW	5750	1/01/97	---	8.0	3.0	4.8
EMERY CREEK PILLOW	4350	1/01/97	---	14.7	4.6	7.2
FISHER CREEK PILLOW	9100	1/01/97	---	34.2	24.6	15.6
FLATTOP MTN PILLOW	6300	1/01/97	---	33.3	26.4	21.0
FROHNER MDWS PILLOW	6480	1/01/97	---	6.1	3.0	3.4
GARVER CREEK PILLOW	4250	1/01/97	---	12.4	--	5.1
GRAVE CRK PILLOW	4300	1/01/97	---	14.4	5.1	7.7
GRIFFIN CR DIVIDE	5150	1/02/97	44	12.2	--	--
HAND CREEK PILLOW	5030	1/01/97	---	12.7	4.1	5.5
HAWKINS LAKE PILLOW	6450	1/01/97	---	20.4	13.7	13.0
HEBGEN DAM	6550	12/30/96	37	9.1	3.0	4.9
HELL ROARING DIVIDE	5770	12/28/96	78	21.1	14.8	13.0
HOLBROOK	4530	1/04/97	36	9.0	3.8	4.0
HOODOO BASIN PILLOW	6050	1/01/97	---	40.6	18.5	19.0
JOHNSON PARK	6450	12/30/96	32	6.2	1.2	3.3

SNOW COURSE	ELEVATION	DATE	SNOW DEPTH	WATER CONTENT	LAST YEAR	AVERAGE 1961-90
KIWANIS CAMP	3720	12/30/96	13	2.3	.8	1.1
KRAFT CREEK PILLOW	4750	1/01/97	---	15.5	3.9	6.6
LAKEVIEW RDG. PILLOW	7400	1/01/97	---	9.4	4.9	5.4
LEMHI RIDGE PILLOW	8100	1/01/97	---	5.9	6.1	4.4
LICK CREEK PILLOW	6860	1/01/97	---	7.7	3.9	5.6
LONE MOUNTAIN PILLOW	8880	1/01/97	---	14.3	12.3	7.5
LOWER TWIN PILLOW	7900	1/01/97	---	15.5	10.8	9.5
LUBRECHT PILLOW	4680	1/01/97	---	6.9	1.5	2.4
LUBRECHT FOREST NO 3	5450	1/02/97	26	7.0	1.6	2.6
LUBRECHT FOREST NO 4	4650	1/02/97	20	5.4	.6	1.4
LUBRECHT FOREST NO 6	4040	1/06/97	24	6.4	.6	1.6
LUBRECHT HYDROPLOT	4200	1/01/97	29	7.1	1.8	2.8
MADISON PLT PILLOW	7750	1/01/97	---	24.1	12.5	10.1
MANY GLACIER PILLOW	4900	1/01/97	---	14.6	4.4	7.3
MARIAS PASS	5250	12/26/96	52	16.2	5.9	6.7
MAYNARD CREEK	6210	12/31/96	40	11.7	2.3	5.8
MONUMENT PK PILLOW	8850	1/01/97	---	18.5	13.0	9.5
MOSS PEAK PILLOW	6780	1/01/97	---	31.8	18.6	16.1
MT LOCKHART PILLOW	6400	1/01/97	---	15.8	10.8	8.8
MULE CREEK PILLOW	8300	1/01/97	---	12.3	11.0	6.8
NEVADA CREEK PILLOW	6480	1/01/97	---	11.6	5.4	5.7
NEVADA RIDGE PILLOW	7020	1/01/97	---	11.3	7.6	8.0
NEZ PERCE CMP PILLOW	5650	1/01/97	---	12.2	6.9	5.7
NOISY BASIN PILLOW	6040	1/01/97	---	36.6	18.4	17.2
N.F. ELK CR PILLOW	6250	1/01/97	---	10.3	5.3	4.6
NF JOCKO PILLOW	6330	1/01/97	---	32.1	20.3	19.1
N.E. ENTRANCE PILLOW	7350	1/01/97	---	6.9	5.0	4.0
OPHIR PARK	7150	12/29/96	49	11.7	6.9	7.0
PETERSON MEADOWS	7200	12/30/96	39	7.9	3.7	4.2
PICKFOOT CRK PILLOW	6650	1/01/97	---	9.7	4.5	4.9
PIKE CREEK PILLOW	5930	1/01/97	---	22.8	12.7	11.4
PIPESTONE PASS	7200	12/31/96	20	4.8	.8	2.1
PLACER BASIN PILLOW	8830	1/01/97	---	13.9	10.5	9.4
PORCUPINE PILLOW	6500	1/01/97	---	6.8	1.4	3.2
ROCKER PEAK PILLOW	8000	1/01/97	---	10.2	8.1	6.4
ROCKY BOY PILLOW	4700	1/01/97	---	3.8	1.4	2.2
ROCKY BOY	4700	12/30/96	18	2.9	.6	1.8
SADDLE MTN PILLOW	7900	1/01/97	---	21.4	18.2	11.1
SHORT CREEK PILLOW	7000	1/01/97	---	3.7	2.2	2.5
SHOWER FALLS PILLOW	8100	1/01/97	---	15.0	12.7	10.4
SILVER RUN PILLOW	6630	1/01/97	---	4.8	3.2	2.0
SKALKAHO PILLOW	7260	1/01/97	---	21.1	15.4	9.8
S.F. SHIELDS PILLOW	8100	1/01/97	---	15.2	8.8	7.5
SPOTTED BEAR MTN.	7000	1/04/97	43	11.3	5.3	6.6
SPUR PARK PILLOW	8100	1/01/97	---	14.7	11.5	9.8
SQUAW PEAK PILLOW	6150	1/01/97	---	16.5	5.6	6.1
STAHL PEAK PILLOW	6030	1/01/97	---	26.4	22.4	16.0
STEMPLE PASS	6600	12/30/96	37	7.4	2.1	--
STORM LAKE	7780	12/30/96	43	9.3	6.8	5.4
STUART MOUNTAIN	7400	1/04/97	92	28.9	17.1	13.4
STUART MOUNTAIN PILL	7400	1/01/97	---	25.3	16.4	12.6
SUCKER CREEK	3960	12/30/96	9	1.3	.1	.6
TAYLOR ROAD	4080	12/30/96	20	2.9	.7	2.0
TEN MILE LOWER	6600	1/02/97	24	5.6	1.1	3.0
TEN MILE MIDDLE	6800	12/31/96	33	7.0	2.3	4.7
TEPEE CREEK PILLOW	8000	1/01/97	---	11.3	6.9	5.7
TIZER BASIN PILLOW	6840	1/01/97	---	7.1	5.2	4.8
TRINKUS LAKE	6100	1/04/97	112	36.0	15.6	18.7
TRUMAN CREEK	4060	1/01/97	---	4.1E	1.3	2.0
TV MOUNTAIN	6800	1/04/97	63	18.0	8.6	7.2

SNOW COURSE	ELEVATION	DATE	SNOW DEPTH	WATER CONTENT	LAST YEAR	AVERAGE 1961-90
TWELVEMILE PILLOW	5600	1/01/97	---	17.2	3.8	7.2
TWENTY-ONE MILE	7150	12/30/96	60	14.0	5.9	7.3
TWIN LAKES PILLOW	6400	1/01/97	---	31.4	21.1	16.3
UPPER HOLLAND LAKE	6200	1/04/97	80	25.4	15.0	15.8
WALDRON PILLOW	5600	1/01/97	---	10.5	5.4	5.0
WARM SPRINGS PILLOW	7800	1/01/97	---	14.8	16.9	9.4
WEASEL DIVIDE	5450	1/01/97	---	25.3E	16.4	15.3
WEST YELLOWSTONE	6700	12/31/96	41	11.4	2.9	4.8
WHISKEY CREEK PILLOW	6800	1/01/97	---	15.0	6.2	7.0
WHITE MILL PILLOW	8700	1/01/97	---	23.3	18.8	11.4
WOOD CREEK PILLOW	5960	1/01/97	---	9.6	4.1	4.4

Montana Water Supply Outlook Report as of January 1, 1997

Weather patterns coming into Montana have been very productive, in terms of getting Water Year 1997 off and running. Early snow came in record amounts and Water Year precipitation has been well above average. Temperatures in northwest and southwest Montana have not been extremely cold, but in all other areas cold arctic air was entrenched for several weeks. At the end of December, the Pineapple Express hit the west and Montana was not sparred from the warm temperatures, wind, and rain. In southwest Montana, alot of valley snow come off during the several days of warm rainy weather.

Snowpack

As of January 1, mountain snow water contents averaged well above average in most areas with all the major river basins setting new thirty six year snow water content records. Many SNOTEL stations now have snow water contents equal to those we normally would expect in March or April. If the weather patterns continue adding to the snowpack already on the ground, we should expect high spring runoffs in many areas. Even though we still have alot of winter remaining, initial planning for high runoff should be being made, especially where high water can be a problem in above average years.

Montana mountain snow water content was 93 percent above average and 77 above last year. West of the Continental Divide, snow water content was 95 percent above average and 91 percent above last year. East of the Continental Divide, snow water content was 83 percent above average and 52 percent above last year.

RIVER BASIN	% OF AVERAGE	% OF LAST YEAR
COLUMBIA	195	191
KOOTENAI	181	184
FLATHEAD	192	181
UPPER CLARK FORK	190	170
BITTERROOT	206	168
LOWER CLARK FORK	225	249
MISSOURI	188	177
HEADWATERS MISSOURI	191	167
JEFFERSON	179	147
MADISON	207	174
GALLATIN	185	163
MISSOURI MAINSTEM	178	197
HEADWATERS MAINSTEM	170	184
SMITH-JUDITH-MUSSELSHELL	178	204
SUN-TETON-MARIAS	193	180
MAINSTEM ABOVE FT. PECK RES	180	189
MILK	151	441
ST. MARY	169	156
ST. MARY & MILK	164	189
YELLOWSTONE	176	133
UPPER YELLOWSTONE	193	141
LOWER YELLOWSTONE (WYOMING)	163	124
WIND	179	131
SHOSHONE	197	115
BIGHORN	161	118
TONGUE	127	110
POWDER	136	134

Precipitation

December mountian and valley precipitation across the state was 145 percent above average and 157 percent above last year, while the water year precipitation was 75 percent above average and 21 percent above last year. Many mountain stations are reporting three to four times what they normally would get during December.

West of the Continental Divide, December mountain and valley precipitation was 133 percent above average and 139 percent above last year and the water year precipitation was 79 percent above average and 13 percent above last year. East of the Divide, December mountain and valley precipitation was 155 percent above average and 172 percent above last year and the water year precipitation was 72 percent above average and 27 percent above last year.

RIVER BASIN	APRIL % OF AVERAGE	WATER YEAR % OF AVERAGE
COLUMBIA	232	179
KOOTENAI	204	173
FLATHEAD	214	184
UPPER CLARK FORK	246	176
BITTERROOT	259	184
LOWER CLARK FORK	235	179
MISSOURI	249	166
JEFFERSON	251	163
MADISON	333	203
GALLATIN	246	169
MISSOURI MAINSTEM	209	149
SMITH-JUDITH-MUSSELSHELL	233	157
SUN-TETON-MARIAS	229	160
MILK	139	124
ST. MARY	221	163
YELLOWSTONE	247	164
UPPER YELLOWSTONE	268	182
LOWER YELLOWSTONE (WYOMING)	230	148
WIND	279	158
SHOSHONE	304	192
BIGHORN	144	117
TONGUE	149	118
POWDER	156	122

Reservoirs

Major reservoir storages statewide were 1 percent above average and 18 percent below last year.

Reservoir storage west of the Continental Divide was at average and 22 percent below last year. East of the Continental Divide, reservoir storages were 7 percent above average and 10 percent below last year.

RIVER BASIN	% OF CAPACITY	% OF AVERAGE
COLUMBIA	100	78
KOOTENAI	113	84
FLATHEAD	91	71
UPPER CLARK FORK	85	68
BITTERROOT	58	52
LOWER CLARK FORK	99	98
MISSOURI	105	90
JEFFERSON	110	94
MADISON	105	103

Reservoirs (continued)

RIVER BASIN	% OF CAPACITY	% OF AVERAGE
GALLATIN	203	113
MISSOURI MAINSTEM	98	93
SMITH-JUDITH-MUSSELSHELL	101	71
SUN-TETON-MARIAS	119	183
MILK	122	99
ST. MARY	117	82
YELLOWSTONE	100	198
UPPER YELLOWSTONE	104	105
LOWER YELLOWSTONE	99	98

Streamflow

Streamflow forecasts across Montana are 39 percent above average and 27 percent above last years forecasts.

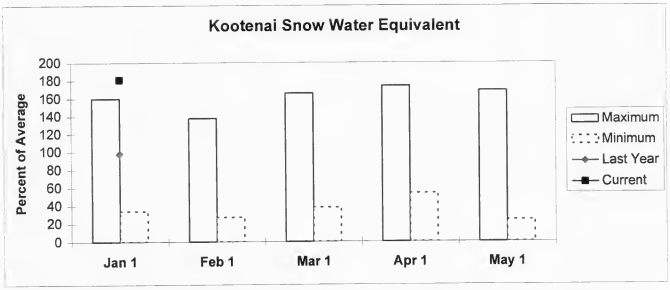
West of the Continental Divide, streamflows are forecast to be 43 percent above average and 18 percent above last years forecasts. East of the Continental Divide, streamflows are forecast to be 35 percent above average and 36 percent above last years forecasts.

RIVER BASIN	FORECASTS % OF AVERAGE	FORECASTS % OF LAST YEAR
COLUMBIA	143	118
KOOTENAI	117	99
FLATHEAD	171	117
UPPER CLARK FORK	145	138
BITTERROOT	153	135
LOWER CLARK FORK	140	124
MISSOURI	148	155
JEFFERSON	157	152
MADISON	157	145
GALLATIN	150	156
MISSOURI MAINSTEM	165	184
SMITH-JUDITH-MUSSELSHELL	149	188
SUN-TETON-MARIAS	151	138
MILK	111	121
ST. MARY	107	115
YELLOWSTONE	150	138
UPPER YELLOWSTONE	147	127
LOWER YELLOWSTONE	152	150

*NOTE: The **FORECAST AS % OF LAST YEAR** column above, is this years forecast as a percnet of last years forecast, not of what actually occurred.*

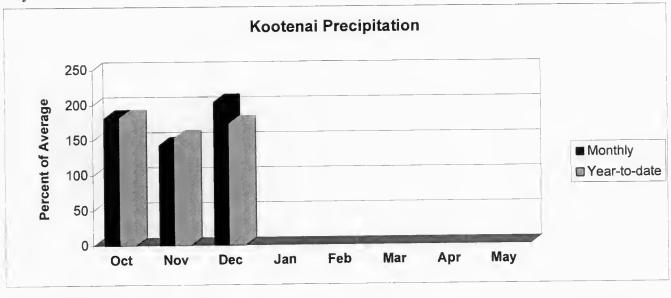
Kootenai River Basin in Montana

Snowpack conditions in the Kootenai River Basin were well above average. Snow water content was 81 percent above average and 84 percent above last year. This has set a new record that was previously set in 1985 and was 60 percent above average.



January maximum swe was established in 1985 and minimum was in 1977; February maximum swe was in 1972 and minimum swe was in 1977; March maximum swe was in 1972 and minimum swe was in 1977; April maximum swe was in 1974 and minimum swe was in 1977; May maximum swe was in 1974 and minimum swe was in 1977; and June maximum swe was in 1974 and minimum swe was in 1992. Average is for the period 1961 through 1990.

Mountain precipitation during December was 100 percent above average and 93 percent above last year. Valley precipitation during December was 138 percent above average and 99 percent above last year. Mountain and valley water year precipitation, beginning October 1, 1996, was 73 percent above average and 8 percent above last year.



Lake Koocanusa storage on the last day of December was 13 percent above average and 16 percent below last year.

Streamflows are forecast to be 17 percent above average and 1 percent below last year.

Streamflow Forecasts - January 1, 1997

Forecast Pt Forecast Period	<== Drier == 90% (1000AF)	70% (1000AF)	Future Conditions Chance of Exceeding * 50% (Most Prob) (1000AF)	(% AVG.)	== Wetter ==> 30% (1000AF)	10% (1000AF)	30 Yr Avg (1000AF)
TOBACCO RIVER nr Eureka							
APR-JUL	211	234	250	188	266	289	133
APR-SEP	224	251	270	184	289	316	147
LIBBY RES Inflow (1,2)							
APR-JUL	4578	5879	6470	112	7061	8362	5779
APR-SEP	5360	6887	7580	112	8273	9800	6772
FISHER RIVER near Libby							
APR-JUL	334	373	400	171	427	466	234
APR-SEP	357	398	425	170	452	493	250
YAAK RIVER near Troy							
APR-JUL	762	829	875	181	921	988	483
APR-SEP	801	869	915	181	961	1029	505
KOOTENAI at Leonia (1,2)							
APR-JUL	5833	7461	8200	114	8939	10567	7199
APR-SEP	6708	8580	9430	114	10280	12152	8275

* 90%, 70%, 30%, and 10% chances of exceeding are the probabilities that the actual flow will exceed the volumes in the table.

The average is computed for the 1961-1990 base period.

(1) - The values listed under the 10% and 90% Chance of Exceeding are actually 5% and 95% exceedance levels.
(2) - The value is natural flow - actual flow may be affected by upstream water management.

Reservoir Storage (1000AF) End of December

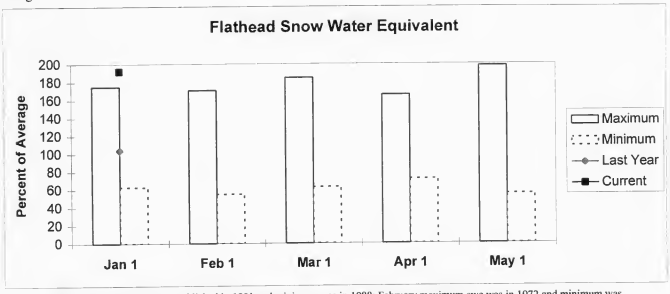
Reservoir	Usable Capacity	********** Usable Storage ********** This Year	Last Year	Average
LAKE KOOCANUSA	5748.0	3438.0	4113.0	3050.0

Watershed Snowpack Analysis - January 1, 1997

Watershed	Number of Data Sites	This Year as Percent of Last Year	Average
KOOTENAI in CANADA	6	91	140
KOOTENAI MAINTSTEM	2	240	196
TOBACCO	3	151	169
FISHER	1	310	231
YAAK	1	149	157
KOOTENAI in MONTANA	7	184	181
KOOTENAI abv BONNERS FRY, ID	13	143	167

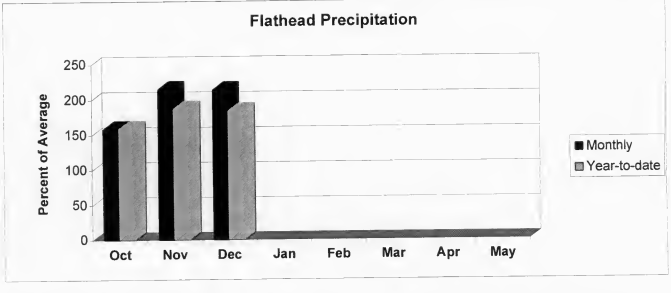
Flathead River Basin

Snowpack conditions in the Flathead River Basin were well above average. Snow water content was 92 percent above average and 81 percent above last year. This has set a new record that was previously set in 1991 and was 75 percent above average.



January maximum swe was established in 1991 and minimum was in 1988; February maximum swe was in 1972 and minimum was in 1977; March maximum swe was in 1972 and minimum was in 1977; April maximum swe was in 1972 and minimum was in 1992; May maximum swe was in 1972 and minimum was in 1992; and June maximum swe was in 1974 and minimum was in 1992. Average is for the period 1961 through 1990.

Mountain precipitation during December was 114 percent above average and 130 percent above last year. Valley precipitation during December was 113 percent above average and 95 percent above last year. Mountain and valley water year precipitation, beginning October 1, 1996, was 84 percent above average and 16 percent above last year.



Reservoir storage on the last day of December was 9 percent below average and 29 percent below last year. Combined Camas reservoir storage was 61 percent above average and 81 percent above last year; combined Mission Valley reservoir storage was 14 percent below average and 26 percent below last year; Hungry Horse storage was 8 percent below average and 26 percent below last year; and Flathead Lake storage was 13 percent below average and 34 percent below last year.

Streamflows are forecast to be 71 percent above average and 17 percent above last year.

Streamflow Forecasts - January 1, 1997

Forecast Pt Forecast Period	<== Drier == Future Conditions == Wetter ==> Chance of Exceeding * 90% (1000AF)	70% (1000AF)	50% (Most Prob) (1000AF)	(% AVG.)	30% (1000AF)	10% (1000AF)	30 Yr Avg (1000AF)
NF FLATHEAD nr Columbia Falls							
APR-JUL	1856	2037	2160	130	2283	2464	1662
APR-SEP	2064	2252	2380	130	2508	2696	1836
MF FLATHEAD nr West Glacier							
APR-JUL	1784	1990	2130	130	2270	2476	1638
APR-SEP	1960	2174	2320	130	2466	2680	1788
HUNGRY HORSE Reservoir Inflow (1,2)							
APR-JUL	2093	2503	2690	131	2877	3287	2051
APR-SEP	2264	2674	2860	131	3046	3456	2184
FLATHEAD at Columbia Falls (2)							
APR-JUL	5888	6544	6990	128	7436	8092	5482
APR-SEP	6482	7148	7600	128	8052	8718	5960
STILLWATER nr Whitefish							
APR-JUL	267	308	335	177	362	403	189
APR-SEP	301	345	375	179	405	449	209
WHITEFISH nr Kalispell							
APR-JUL	144	160	170	164	180	196	104
APR-SEP	161	178	190	164	202	219	116
SWAN RIVER near Bigfork							
APR-JUL	633	709	760	130	811	887	583
APR-SEP	734	815	870	131	925	1006	665
FLATHEAD Lake Inflow (1,2)							
APR-JUL	6792	7911	8420	132	8929	10048	6390
APR-SEP	7458	8601	9120	132	9639	10782	6926

* 90%, 70%, 30%, and 10% chances of exceeding are the probabilities that the actual flow will exceed the volumes in the table.

The average is computed for the 1961-1990 base period.

(1) - The values listed under the 10% and 90% Chance of Exceeding are actually 5% and 95% exceedance levels.
(2) - The value is natural flow - actual flow may be affected by upstream water management.

Reservoir Storage (1000AF) End of December

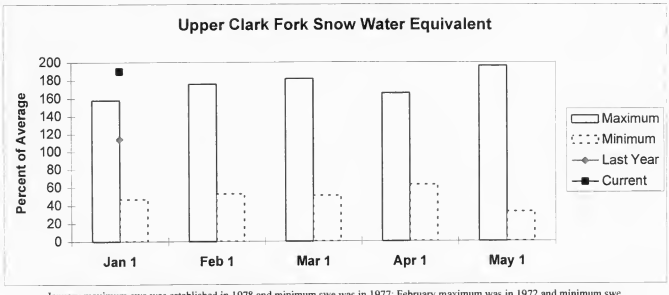
Reservoir	Usable Capacity	********** Usable Storage ********* This Year	Last Year	Average
CAMAS (4)	45.2	29.9	16.5	18.6
MISSION VALLEY (8)	100.0	28.9	38.8	33.8
HUNGRY HORSE	3451.0	2388.0	3231.0	2586.0
FLATHEAD LAKE	1791.0	1132.0	1724.0	1305.0

Watershed Snowpack Analysis - January 1, 1997

Watershed	Number of Data Sites	This Year as Percent of Last Year	Average
NORTH FORK FLATHEAD in CANAD	0	0	0
NORTH FORK FLATHEAD in MONTA	6	151	168
MIDDLE FORK FLATHEAD	5	165	182
SOUTH FORK FLATHEAD	6	212	191
STILLWATER-WHITEFISH	4	204	190
SWAN	6	193	190
MISSION VALLEY	3	220	217
LITTLE BITTERROOT-ASHLEY	4	312	218
JOCKO	4	181	204
FLATHEAD in MONTANA	27	188	192
FLATHEAD RIVER BASIN	27	188	192

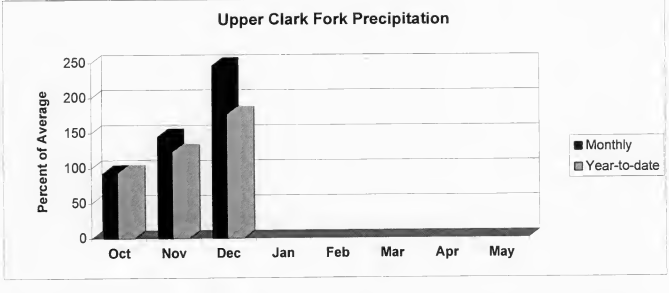
Upper Clark Fork River Basin

Snowpack conditions in the Upper Clark Fork River Basin were well above average. Snow water content was 90 percent above average and 70 percent above last year. This has set a new record that was previously set in 1978 and was 58 percent above average.



January maximum swe was established in 1978 and minimum swe was in 1977; February maximum was in 1972 and minimum swe was in 1977; March maximum swe was in 1972 and minimum swe was in 1977; April maximum swe was in 1972 and minimum was in 1994; May maximum swe was in 1972 and minimum swe was in 1977; and June maximum swe was in 1975 and minimum swe was in 1987. Average is for the period 1961 through 1990.

Mountain precipitation during December was 144 percent above average and 173 percent above last year. Valley precipitation during December was 160 percent above average and 167 percent above last year. Mountain and valley water year precipitation, beginning October 1, 1996, was 76 percent above average and 19 percent above last year.



Reservoir storage on the last day of December was 15 percent below average and 32 percent below last year. Georgetown Lake storage was 24 percent below average and 27 percent below last year; Lower Willow Creek storage was 7 percent above average and 61 percent below last year; and Nevada Creek storage was 41 percent above average and 35 percent below last year.

Streamflows are forecast to be 45 percent above average and 38 percent above last year.

Streamflow Forecasts - January 1, 1997

Forecast Pt Forecast Period	<=== Drier === 90% (1000AF)	70% (1000AF)	Future Conditions Chance of Exceeding * 50% (Most Prob) (1000AF)	(% AVG.)	=== Wetter ===> 30% (1000AF)	10% (1000AF)	30 Yr Avg (1000AF)
WARM SPRINGS CK at Anaconda (2)							
APR-JUL	36	45	50	132	56	64	38
APR-SEP	45	54	60	128	66	75	47
LITTLE BLACKFOOT nr Garrison							
APR-JUL	44	80	105	127	130	166	83
APR-SEP	50	89	115	129	141	180	89
FLINT CK nr Southern Cross (2)							
APR-JUL	12.1	16.2	19.0	134	22	26	14.2
APR-SEP	13.9	19.0	23	135	26	31	16.7
FLINT CK bl Boulder Ck							
APR-JUL	44	59	70	123	81	96	57
APR-SEP	58	77	90	123	103	122	73
LOWER WILLOW CK RES Inflow							
APR-JUL	9.9	14.7	18.0	129	21	26	14.0
APR-SEP	10.7	15.6	19.0	128	22	27	14.8
MF ROCK CREEK nr Philipsburg							
APR-JUL	83	96	105	159	114	127	66
APR-SEP	91	105	115	155	125	139	74
ROCK CREEK near Clinton							
APR-JUL	324	402	455	154	508	586	296
APR-SEP	362	447	505	152	563	648	333
NEVADA CK nr Finn							
APR-JUL	21	26	29	152	32	37	19.1
APR-SEP	23	28	31	148	34	39	21
CLEARWATER nr Clearwater							
APR-JUL	213	241	260	151	279	307	172
APR-SEP	226	255	275	152	295	324	181
BLACKFOOT RIVER near Bonner							
APR-JUL	1042	1196	1300	156	1404	1558	835
APR-SEP	1165	1329	1440	156	1551	1715	926
CLARK FORK ab Milltown							
APR-JUL	700	891	1020	156	1149	1340	652
APR-SEP	828	1038	1180	156	1322	1532	755

Streamflow Forecasts - January 1, 1997 (continued)

Forecast Pt Forecast Period	<-- Drier -- Future Conditions -- Wetter --> Chance of Exceeding * 90% (1000AF)	70% (1000AF)	50% (Most Prob) (1000AF)	(% AVG.)	30% (1000AF)	10% (1000AF)	30 Yr Avg (1000AF)
CLARK FORK ab Missoula							
APR-JUL	1789	2105	2320	156	2535	2851	1487
APR-SEP	2044	2387	2620	156	2853	3196	1681

* 90%, 70%, 30%, and 10% chances of exceeding are the probabilities that the actual flow will exceed the volumes in the table.

The average is computed for the 1961-1990 base period.

(1) - The values listed under the 10% and 90% Chance of Exceeding are actually 5% and 95% exceedance levels.
(2) - The value is natural flow - actual flow may be affected by upstream water management.

Reservoir Storage (1000AF) End of December

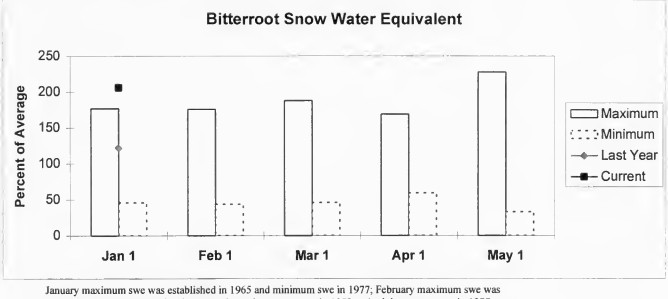
Reservoir	Usable Capacity	********** Usable Storage ********** This Year	Last Year	Average
GEORGETOWN LAKE	31.0	21.1	28.9	27.9
LOWER WILLOW CREEK	4.9	1.5	3.8	1.4
NEVADA CREEK	12.6	5.5	8.4	3.9

Watershed Snowpack Analysis - January 1, 1997

Watershed	Number of Data Sites	This Year as Percent of Last Year	Average
CLARK FORK above FLINT CREEK	10	156	164
FLINT CREEK	5	159	192
ROCK CREEK	3	148	197
CLARK FORK above BLACKFOOT	15	156	178
BLACKFOOT	14	193	199
UPPER CLARK FORK RIVER BASIN	26	170	190

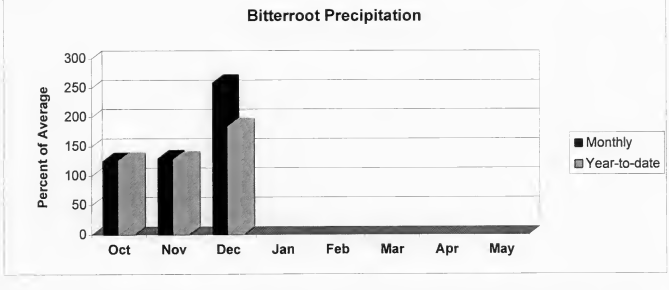
Bitterroot River Basin

Snowpack conditions in the Bitterroot River Basin were well above average. Snow water content was 106 percent above average and 68 percent above last year. This has set a new record that was previously set in 1965 and was 77 percent above average.



January maximum swe was established in 1965 and minimum swe in 1977; February maximum swe was in 1972 and minimum was in 1977; March maximum swe was in 1972 and minimum swe was in 1977; April maximum swe was in 1972 and minimum swe was in 1977; May maximum swe was in 1972 and minimum swe was in 1987; and June maximum swe was 1972 and 1974 and minimum swe was in 1987 and 1992. Average is for the period 1961 through 1990.

Mountain precipitation during December was 142 percent above average and 144 percent above last year. Valley precipitation during December was 294 percent above average and 140 percent above last year. Mountain and valley water year precipitation, beginning October 1, 1996, was 84 percent above average and 2 percent above last year.



Reservoir storage on the last day of December was 42 percent below average and 48 percent below last year. Painted Rocks Lake storage was 63 percent below average and 2 percent above last year and Como storage was 11 percent below average and 61 percent below last year.

Streamflows are forecast to be 53 percent above average and 35 percent above last year.

Streamflow Forecasts - January 1, 1997

Forecast Pt / Forecast Period	<== Drier == 90% (1000AF)	70% (1000AF)	Future Conditions — Chance of Exceeding * — 50% (Most Prob) (1000AF)	(% AVG.)	== Wetter ==> 30% (1000AF)	10% (1000AF)	30 Yr Avg (1000AF)
WF BITTERROOT nr Conner (2)							
APR-JUL	184	223	250	165	277	316	152
APR-SEP	200	242	270	163	298	340	166
BITTERROOT nr Darby							
APR-JUL	565	675	750	153	825	935	491
APR-SEP	637	749	825	153	901	1013	540
ROCK CK nr Darby (2)							
APR-JUL	88	101	110	139	119	132	79
APR-SEP	93	106	115	139	124	137	83
SKALKAHO CK nr Hamilton							
APR-JUL	51	59	65	141	71	79	46
APR-SEP	59	69	75	142	81	91	53
BURNT FORK CK nr Stevensville (2)							
APR-JUL	29	35	40	138	45	51	29
APR-SEP	36	43	48	141	53	61	34
BITTERROOT at Missoula							
APR-JUL	1554	1813	1990	153	2167	2426	1301
APR-SEP	1740	1996	2170	153	2344	2600	1418

* 90%, 70%, 30%, and 10% chances of exceeding are the probabilities that the actual flow will exceed the volumes in the table.

The average is computed for the 1961-1990 base period.

(1) - The values listed under the 10% and 90% Chance of Exceeding are actually 5% and 95% exceedance levels.
(2) - The value is natural flow - actual flow may be affected by upstream water management.

Reservoir Storage (1000AF) End of December

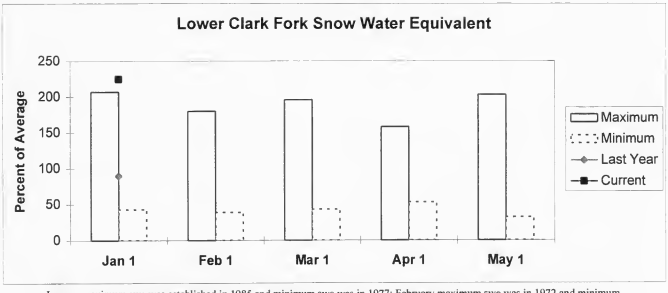
Reservoir	Usable Capacity	********** Usable Storage ********* This Year	Last Year	Average
PAINTED ROCKS LAKE	31.7	5.2	5.1	13.9
COMO	34.9	8.0	20.4	9.0

Watershed Snowpack Analysis - January 1, 1997

Watershed	Number of Data Sites	This Year as Percent of Last Year	Average
WEST FORK BITTERROOT	2	134	200
EAST SIDE BITTERROOT	3	135	203
WEST SIDE BITTERROOT	3	201	206
BITTERROOT RIVER BASIN	7	168	206

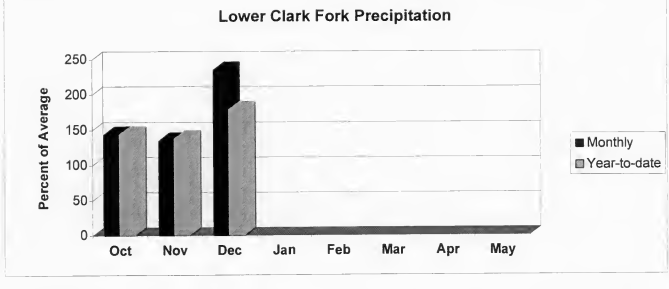
Lower Clark Fork River Basin

Snowpack conditions in the Lower Clark Fork River Basin were well above average. Snow water content was 125 percent above average and 149 percent above last year. This has set a new record that was previously set in 1985 and was 107 percent above average.



January maximum swe was established in 1985 and minimum swe was in 1977; February maximum swe was in 1972 and minimum swe was in 1977; March maximum swe was in 1972 and minimum was in 1977; April maximum swe was in 1972 and minimum swe was in 1981; May maximum swe was in 1972 and minimum swe was in 1977; and June maximum swe was in 1974 and minimum swe was in 1977. Average is for the period 1961 through 1990.

Mountain precipitation during December was 132 percent above average and 135 percent above last year. Valley precipitation during December was 147 percent above average and 99 percent above last year. Mountain and valley water year precipitation, beginning October 1, 1996, was 79 percent above average and 10 percent above last year.



Noxon Rapids storage on the last day of December was 1 percent below average and 2 percent below last year.

Streamflows are forecast to be 40 percent above average and 24 percent above last year.

Streamflow Forecasts - January 1, 1997

Forecast Pt Forecast Period	<== Drier == 90% (1000AF)	70% (1000AF)	Future Conditions 50% (Most Prob) (1000AF)	(% AVG.)	== Wetter ==> 30% (1000AF)	10% (1000AF)	30 Yr Avg (1000AF)
			Chance of Exceeding *				
CLARK FORK ab Missoula							
APR-JUL	1789	2105	2320	156	2535	2851	1487
APR-SEP	2044	2387	2620	156	2853	3196	1681
CLARK FORK bl Missoula							
APR-JUL	3367	3928	4310	155	4692	5253	2788
APR-SEP	3816	4396	4790	155	5184	5764	3099
CLARK FORK at St. Regis (1)							
APR-JUL	3754	5023	5600	152	6177	7446	3686
APR-SEP	4210	5620	6260	153	6900	8310	4095
CLARK FORK nr Plains (1,2)							
APR-JUL	10029	13035	14400	138	15765	18771	10450
APR-SEP	10994	14299	15800	138	17301	20606	11470
THOMPSON RIVER nr Thompson Falls							
APR-JUL	280	334	370	173	406	460	214
APR-SEP	320	376	415	173	454	510	240
PROSPECT CREEK at Thompson Falls							
APR-JUL	166	195	215	175	235	264	123
APR-SEP	179	210	230	174	250	281	132
CLARK FK at Whitehorse Rpds (1,2)							
APR-JUL	10869	14260	15800	135	17340	20731	11730
APR-SEP	11973	15705	17400	135	19095	22827	12910

* 90%, 70%, 30%, and 10% chances of exceeding are the probabilities that the actual flow will exceed the volumes in the table.

The average is computed for the 1961-1990 base period.

(1) - The values listed under the 10% and 90% Chance of Exceeding are actually 5% and 95% exceedance levels.
(2) - The value is natural flow - actual flow may be affected by upstream water management.

Reservoir Storage (1000AF) End of December

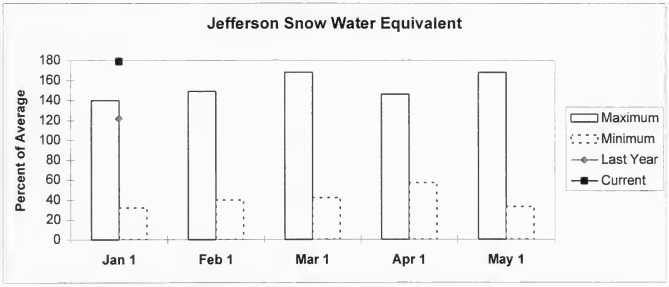
Reservoir	Usable Capacity	********** Usable Storage ********* This Year	Last Year	Average
NOXON RAPIDS	335.0	312.8	318.0	317.1

Watershed Snowpack Analysis - January 1, 1997

Watershed	Number of Data Sites	This Year as Percent of Last Year	Average
LOWER CLARK FORK	7	249	225
CLARK FORK RIVER BASIN	32	195	202
CLARK FORK ab PEND ORIELLE L	60	190	196
COLUMBIA IN MONTANA	63	191	195
COLUMBIA RIVER BASIN	69	180	191

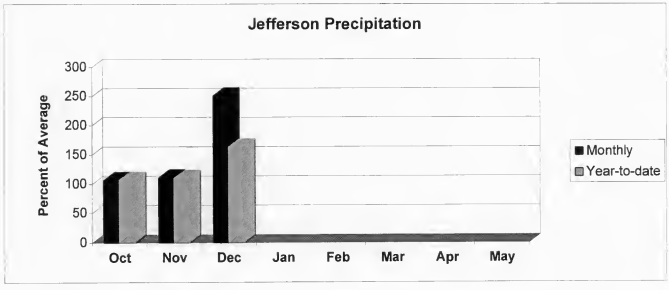
Jefferson River Basin

Snowpack conditions in the Jefferson River Basin were well above average. Snow water content was 79 percent above average and 47 percent above last year. This has set a new record that was previously set in 1976 and was 40 percent above average.



January maximum swe was established in 1976 and minimum swe was in 1977; February maximum swe was in 1969 and minimum was in 1977; March maximum swe was in 1972 and minimum was in 1977; April maximum swe was in 1972 and minimum was in 1977; May maximum swe was in 1975 and minimum swe was in 1977; and June maximum swe was in 1982 and minimum in 1987. Average is for the period 1961 through 1990.

Mountain precipitation during December was 162 percent above average and 180 percent above last year. Valley precipitation during December was 55 percent above average and 65 percent above last year. Mountian and valley water year precipitation, beginning October 1, 1996, was 63 percent above average and 23 percent above last year.



Reservoir storage on the last day of December was 10 percent above average and 6 percent below last year. Lima storage was 27 percent above average and 4 percent below last year; Clark Canyon storage was 6 percent above average and 6 percent below last year; and Ruby River storage was NOT AVAILABLE TO REPORT.

Streamflows are forecast to be 57 percent above average and 52 percent above last year.

Streamflow Forecasts - January 1, 1997

Forecast Pt Forecast Period	<=== Drier === 90% (1000AF)	70% (1000AF)	Future Conditions 50% (Most Prob) (1000AF)	(% AVG.)	=== Wetter ===> 30% (1000AF)	10% (1000AF)	30 Yr Avg (1000AF)
RED ROCK RIVER near Monida (2)							
APR-JUL	88	107	120	124	133	153	97
APR-SEP	96	119	135	129	151	174	105
BEAVERHEAD RIVER near Grant (2)							
APR-JUL	148	179	200	152	221	252	132
APR-SEP	172	210	235	152	260	298	155
BEAVERHEAD RIVER at Barretts (2)							
APR-JUL	185	218	240	140	262	295	172
APR-SEP	221	256	280	138	304	339	203
RUBY RIVER near Alder							
APR-JUL	88	107	120	145	133	152	83
APR-SEP	109	130	145	147	160	182	99
BIG HOLE RIVER near Melrose							
APR-JUL	731	876	975	152	1074	1219	641
APR-SEP	804	960	1065	153	1170	1326	697
BOULDER RIVER near Boulder							
APR-JUL	86	109	125	147	141	164	85
APR-SEP	88	113	130	143	147	172	91
WILLOW CREEK near Harrison							
APR-JUL	17.9	25	30	170	35	42	17.7
APR-SEP	19.9	28	34	170	40	48	20
JEFFERSON RIVER near Three Forks (2)							
APR-JUL	1164	1400	1560	170	1720	1956	920
APR-SEP	1321	1573	1745	172	1917	2169	1012

Chance of Exceeding *

* 90%, 70%, 30%, and 10% chances of exceeding are the probabilities that the actual flow will exceed the volumes in the table.

The average is computed for the 1961-1990 base period.

(1) - The values listed under the 10% and 90% Chance of Exceeding are actually 5% and 95% exceedance levels.
(2) - The value is natural flow - actual flow may be affected by upstream water management.

Reservoir Storage (1000AF) End of December

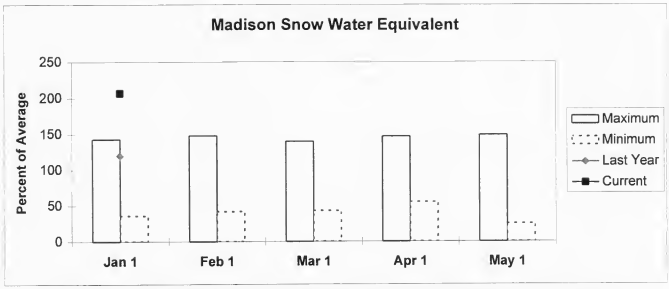
Reservoir	Usable Capacity	********** Usable Storage ********* This Year	Last Year	Average
LIMA	84.0	41.2	42.9	32.4
CLARK CANYON	255.6	150.0	160.3	142.1
RUBY RIVER		NO REPORT		

Watershed Snowpack Analysis - January 1, 1997

Watershed	Number of Data Sites	This Year as Percent of Last Year	Average
BEAVERHEAD	8	146	183
RUBY	4	133	152
BIGHOLE	9	130	182
BOULDER	5	191	165
JEFFERSON RIVER BASIN	21	147	179

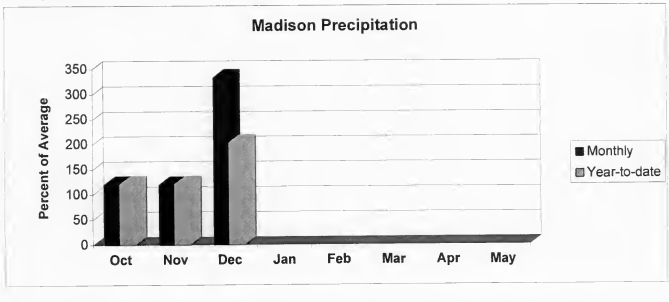
Madison River Basin

Snowpack conditions in the Madison River Basin were well above average. Snow water content was 107 percent above average and 74 percent above last year. This has set a new record that was previously set in 1971 and was 43 percent above average.



January maximum swe was established in 1971 and minimum swe was in 1977; February maximum swe was in 1969 and minimum was in 1977; March maximum swe was in 1969 and minimum was in 1977; April maximum swe was in 1974 and minimum was in 1977; May maximum swe was in 1971 and minimum swe was in 1977; and June maximum swe was in 1995 and minimum in 1987. Average is for the period 1961 through 1990.

Mountain and valley precipitation during December was 236 percent above average and 234 percent above last year. Mountian and valley water year precipitation, beginning October 1, 1996, was 103 percent above average and 61 percent above last year.



Reservoir storage on the last day of December was 5 percent above average and 3 percent above last year. Ennis Lake storage was 5 percent below average and 2 percent above last year and Hebgen Lake storage was 7 percent above average and 3 percent above last year.

Streamflows are forecast to be 57 percent above average and 45 percent above last year.

Streamflow Forecasts - January 1, 1997

Forecast Pt	<=== Drier ===	Future Conditions	=== Wetter ===>			
	Chance of Exceeding *					
Forecast Period	90% (1000AF)	70% (1000AF)	50% (Most Prob) (1000AF)	(% AVG.)	30% (1000AF)	10% (1000AF)	30 Yr Avg (1000AF)
MADISON RIVER near Grayling (2)							
APR-JUL	510	555	585	154	615	660	380
APR-SEP	647	699	735	151	771	823	486
MADISON RIVER near McAllister (2)							
APR-JUL	922	998	1050	159	1102	1178	662
APR-SEP	1163	1248	1305	157	1362	1447	831

* 90%, 70%, 30%, and 10% chances of exceeding are the probabilities that the actual flow will exceed the volumes in the table.

The average is computed for the 1961-1990 base period.

(1) - The values listed under the 10% and 90% Chance of Exceeding are actually 5% and 95% exceedance levels.
(2) - The value is natural flow - actual flow may be affected by upstream water management.

Reservoir Storage (1000AF) End of December

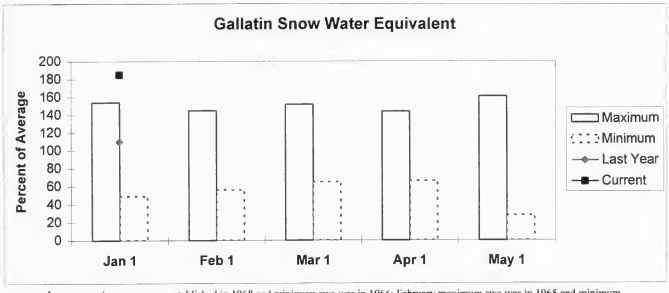
Reservoir	Usable Capacity	********** Usable Storage ********** This Year	Last Year	Average
ENNIS LAKE	41.0	32.1	31.4	33.7
HEBGEN LAKE	377.5	263.8	256.8	246.8

Watershed Snowpack Analysis - January 1, 1997

Watershed	Number of Data Sites	This Year as Percent of Last Year	Average
MADISON above HEBGEN LAKE	6	207	234
MADISON below HEBGEN LAKE	7	147	184
MADISON RIVER BASIN	13	174	207

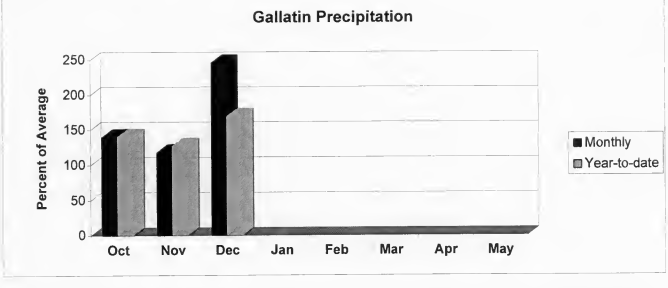
Gallatin River Basin

Snowpack conditions in the Gallatin River Basin were well above average. Snow water content was 85 percent above average and 63 percent above last year. This has set a new record that was previously set in 1968 and was 54 percent above average.



January maximum swe was established in 1968 and minimum swe was in 1966; February maximum swe was in 1965 and minimum was in 1981; March maximum swe was in 1965 and minimum was in 1977 and 1987; April maximum swe was in 1971 and minimum was in 1987; May maximum swe was in 1970 and minimum swe was in 1987; and June maximum swe was in 1975 and minimum in 1987. Average is for the period 1961 through 1990.

Snowpack conditions in the Gallatin River Basin were well above average. Snow water content was 85 percent above average and 63 percent above last year. This has set a new record that was previously set in 1968 and was 54 percent above average.



Middle Creek storage on the last day of December was 103 percent above average and 13 percent above last year.

Streamflows are forecast to be 50 percent above average and 56 percent above last year.

Streamflow Forecasts - January 1, 1997

Forecast Pt Forecast Period	<== Drier == 90% (1000AF)	70% (1000AF)	Future Conditions Chance of Exceeding * 50% (Most Prob) (1000AF)	(% AVG.)	== Wetter ==> 30% (1000AF)	10% (1000AF)	30 Yr Avg (1000AF)
GALLATIN RIVER near Gateway							
APR-JUL	533	591	630	143	669	727	441
APR-SEP	628	692	735	142	778	842	518
E & W FK HYALITE CREEK near Bozeman							
APR-JUL	24	28	30	130	33	36	23
APR-SEP	27	30	33	127	36	40	26
HYALITE CREEK near Bozeman (2)							
APR-JUL	38	44	48	133	52	59	36
APR-SEP	45	51	56	133	61	67	42
GALLATIN RIVER at Logan (2)							
APR-JUL	616	717	785	158	853	954	498
APR-SEP	723	828	900	155	972	1077	581

* 90%, 70%, 30%, and 10% chances of exceeding are the probabilities that the actual flow will exceed the volumes in the table.

The average is computed for the 1961-1990 base period.

(1) - The values listed under the 10% and 90% Chance of Exceeding are actually 5% and 95% exceedance levels.
(2) - The value is natural flow - actual flow may be affected by upstream water management.

Reservoir Storage (1000AF) End of December

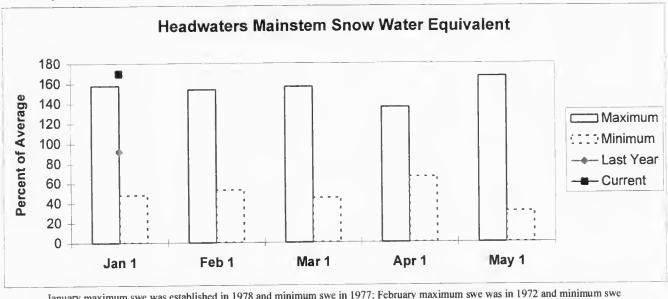
Reservoir	Usable Capacity	********** Usable Storage This Year	Last Year	********* Average
MIDDLE CREEK	10.2	6.9	6.1	3.4

Watershed Snowpack Analysis - January 1, 1997

Watershed	Number of Data Sites	This Year as Percent of Last Year	Average
UPPER GALLATIN	4	158	201
HYALITE	2	137	142
BRIDGER	2	246	193
GALLATIN RIVER BASIN	8	168	185
MISSOURI HEADWATERS	36	168	192

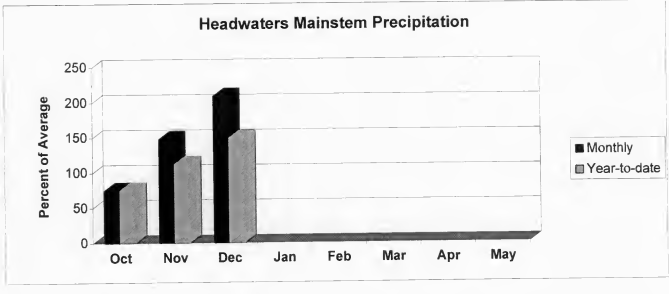
Missouri Mainstem River Basin

Snowpack conditions in the Headwaters Missouri Mainstem River Basin were well above average. Snow water content was 70 percent above average and 84 percent above last year. This has set a new record that was previously set in 1978 and was 58 percent above average.



January maximum swe was established in 1978 and minimum swe in 1977; February maximum swe was in 1972 and minimum swe was in 1977; March maximum swe in 1972 and minimum swe was in 1977; April maximum swe was in 1972 and minimum swe was in 1961; May maximum swe was in 1975 and minimum swe was in 1977; and June maximum swe was in 1982 and minimum swe was in 1992. Average is for the period 1961 through 1990.

Mountain precipitation during December was 120 percent above average and 164 percent above last year. Valley precipitation during December was 78 percent above average and 198 percent above last year. Mountain and valley water year precipitation, beginning October 1, 1996, was 49 percent above average and 36 percent above last year.



Reservoir storage on the last day of December was 2 percent below average and 7 percent below last year. Canyon Ferry Lake storage was 2 percent below average and 8 percent below last year; Helena Valley storage was 24 percent above average and the same as last year; Lake Helena storage was 5 percent above average and the same as last year; Hauser & Helena storage was 2 percent above average and the same as last year; Holter Lake storage was 1 percent above average and 5 percent below last year; and Fort Peck Lake storage was 2 percent above average and 3 percent below last year.

Streamflows are forecast to be 65 percent above average and 84 percent above last year.

Streamflow Forecasts - January 1, 1997

Forecast Pt / Forecast Period	<=== Drier === Future Conditions === Wetter ===> Chance of Exceeding * 90% (1000AF)	70% (1000AF)	50% (Most Prob) (1000AF)	(% AVG.)	30% (1000AF)	10% (1000AF)	30 Yr Avg (1000AF)
MISSOURI RIVER at Toston (2)							
APR-JUL	2537	3003	3320	160	3637	4103	2075
APR-SEP	3068	3487	3820	158	4153	4542	2416
PRICKLY PEAR CREEK near Clancy							
APR-JUL	9.0	20	28	120	35	46	23
APR-SEP	11.4	24	32	119	40	53	27
SUN RIVER at Gibson Dam (2)							
APR-JUL	548	659	735	154	811	922	478
APR-SEP	614	731	810	154	889	1006	526
MISSOURI RIVER at Fort Benton (2)							
APR-JUL	3816	4581	5100	165	5619	6384	3087
APR-SEP	4855	5740	6290	171	6840	7687	3678
MARIAS RIVER near Shelby (2)							
APR-JUL	432	589	695	156	801	958	447
APR-SEP	560	642	750	154	858	1237	487
MISSOURI RIVER at Virgelle (2)							
APR-JUL	4165	5216	5930	165	6644	7695	3595
APR-SEP	5356	6294	7000	166	7706	8982	4217
MISSOURI RIVER near Landusky (2)							
APR-JUL	5020	5842	6400	164	6958	7780	3897
APR-SEP	5954	7070	7800	170	8530	10076	4580
MISSOURI RIVER below Fort Peck (2)							
APR-JUL	4874	5961	6700	167	7439	8526	4015
APR-SEP	5975	6959	7900	172	8841	10295	4596
LAKE SAKAKAWEA Inflow (2)							
APR-JUL	12575	14495	15800	160	17105	19025	9897
APR-SEP	13842	16410	18000	159	19590	22352	11346

* 90%, 70%, 30%, and 10% chances of exceeding are the probabilities that the actual flow will exceed the volumes in the table.

The average is computed for the 1961-1990 base period.

(1) - The values listed under the 10% and 90% Chance of Exceeding are actually 5% and 95% exceedance levels.
(2) - The value is natural flow - actual flow may be affected by upstream water management.

Reservoir Storage (1000AF) End of December

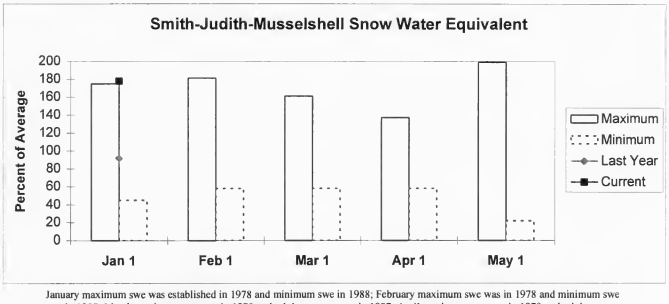
Reservoir	Usable Capacity	********** Usable Storage ********* This Year	Last Year	Average
CANYON FERRY LAKE	2043.0	1657.0	1792.0	1690.0
HELENA VALLEY	9.2	6.3	6.3	5.1
LAKE HELENA	10.4	10.9	10.9	10.4
HAUSER & HELENA	61.9	63.1	63.1	61.7
HOLTER LAKE	81.9	77.1	81.3	76.7
FORT PECK LAKE (MAF)	18.9	15.4	15.9	15.1

Watershed Snowpack Analysis - January 1, 1997

Watershed	Number of Data Sites	This Year as Percent of Last Year	Average
HEADWATERS MISSOURI MAINSTEM	9	184	170
SMITH-JUDITH-MUSSELSHELL	8	208	176
SUN-TETON-MARIAS	7	180	192
MISSOURI MAINSTEM abv FT PEC	23	190	179
MILK RIVER BASIN	6	441	151
MISSOURI MAINSTEM BASIN	28	200	175

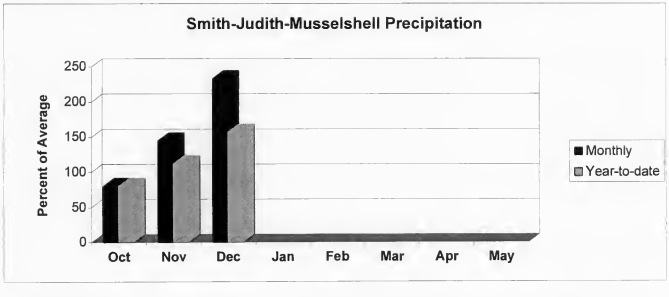
Smith-Judith-Musselshell River Basins

Snowpack conditions in the Smith-Judith-Musselshell River Basins were well above average. Snow water content was 78 percent above average and 104 percent above last year. This has set a new record that was previously set in 1978 and was 75 percent above average. Snow water content in the Smith River Basin was 79 percent above average and 68 percent above last year; in the Judith River Basin was 58 percent above average and 77 percent above last year; and in the Musselshell Basin River was 100 percent above average and 400 percent above last year.



January maximum swe was established in 1978 and minimum swe in 1988; February maximum swe was in 1978 and minimum swe was in 1987; March maximum swe was in 1978 and minimum swe was in 1987; April maximum swe was in 1970 and minimum swe was in 1992; and May maximum swe was in 1970 and minimum swe was in 1987; and June maximum swe was in 1982 and minimum swe was in 1992. Average is for the period 1961 through 1990.

Mountain and valley precipitation during December in the Smith-Belts was 175 percent above average and 207 percent above last year; in the Judith was 95 percent above average and 241 percent above last year; and in the Musselshell was 165 percent above average and 335 percent above last year. Mountain and valley water year precipitation, beginning October 1, 1996, was 57 percent above average and 42 percent above last year.



Reservoir storage on the last day of December was 1 percent above average and 29 percent below last year. Smith River storage was 8 percent below average and 18 percent below last year; Bair storage was 43 percent below average and 59 below last year; Martinsdale storage was 8 percent above average and 28 percent below last year; and Deadman's Basin was 4 percent above average and 28 percent below last year.

Streamflows are forecast to be 49 percent above average and 88 percent above last year.

Streamflow Forecasts - January 1, 1997

Forecast Pt Forecast Period	<--- Drier --- Future Conditions --- Wetter ---> Chance of Exceeding * 90% (1000AF)	70% (1000AF)	50% (Most Prob) (1000AF)	(% AVG.)	30% (1000AF)	10% (1000AF)	30 Yr Avg (1000AF)
SHEEP CREEK nr White Sulphur Springs							
APR-JUL	20	23	25	138	27	30	18.1
APR-SEP	24	27	29	138	31	34	21
SMITH RIVER blw Eagle Creek							
APR-JUL	107	135	155	151	175	203	103
APR-SEP	129	162	185	149	208	241	124
NF MUSSELSHELL near Delpine							
APR-JUL	4.63	6.34	7.50	156	8.66	10.37	4.80
APR-SEP	5.54	7.45	8.75	156	10.05	11.96	5.60
SF MUSSELSHELL abv Martinsdale							
APR-JUL	41	63	78	150	93	115	52
APR-SEP	46	69	84	150	99	122	56

* 90%, 70%, 30%, and 10% chances of exceeding are the probabilities that the actual flow will exceed the volumes in the table.

The average is computed for the 1961-1990 base period.

(1) - The values listed under the 10% and 90% Chance of Exceeding are actually 5% and 95% exceedance levels.
(2) - The value is natural flow - actual flow may be affected by upstream water management.

Reservoir Storage (1000AF) End of December

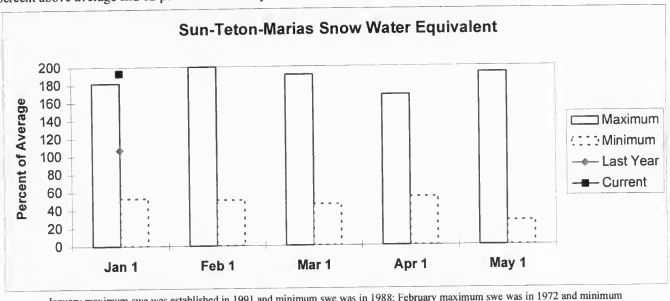
Reservoir	Usable Capacity	********** Usable Storage ********** This Year	Last Year	Average
SMITH RIVER	10.6	5.4	6.6	5.9
NEWLAN CREEK		NO REPORT		
BAIR	7.0	2.1	5.1	3.7
MARTINSDALE	23.1	9.9	13.8	9.2
DEADMAN'S BASIN	72.2	42.0	58.1	40.3

Watershed Snowpack Analysis - January 1, 1997

Watershed	Number of Data Sites	This Year as Percent of Last Year	Average
SMITH	4	168	179
JUDITH	4	187	159
MUSSELSHELL	3	353	183
SMITH-JUDITH-MUSSELSHELL	8	208	176

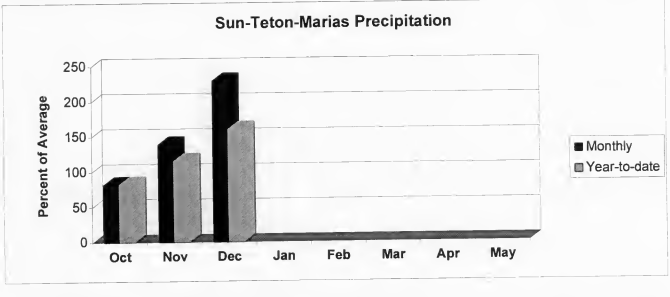
Sun-Teton-Marias River Basins

Snowpack conditions in the Sun-Teton-Marias River Basins were well above average. Snow water content was 93 percent above average and 80 percent above last year. This has set a new record that was previously set in 1991 and was 82 percent above average. Snow water content in the Sun River Basin was 92 percent above average and 70 percent above last year; in the Teton River Basin was 84 percent above average and 79 percent above last year; and in the Marias River Basin was 91 percent above average and 82 percent above last year.



January maximum swe was established in 1991 and minimum swe was in 1988; February maximum swe was in 1972 and minimum swe was in 1977; March maximum swe was in 1972 and minimum swe was in 1984; April maximum swe was in 1972 and minimum swe was in 1984; May maximum swe was in 1972 and minimum swe was in 1977; and June maximum was in 1982 and minimum swe was in 1992. Average is for the period 1961 through 1990.

Mountain and valley precipitation during December in the Sun was 148 percent above average and 128 percent above last year; in the Teton was 106 percent above average and 83 percent above last year; and in the Marias was 134 percent above average and 156 percent above last year. Mountian and valley water year precipitation, beginning October 1, 1996, was 60 percent above average and 6 percent above last year.



Reservoir storage on the last day of December was 19 percent above average and 17 percent below last year. Gibson storage was 13 percent below average and 31 percent below last year; Pishkun storage was 100 percent above average and 73 percent above last year; Willow Creek storage was 76 percent below average and 80 percent below last year (these numbers are low due to repairs made to the dam); Lower Two Medicine Lake storage was 36 percent of average and 62 percent below last year; Four Horns Lake storage was 1 percent below average and 68 percent above last year; Swift storage was 5 percent below average and 49 percent below last year; Lake Frances storage was 3 percent above average and 25 percent below last year; and Lake Elwell (Tiber) storage was 26 percent above average and 15 percent below last year.

Streamflows are forecast to be 51 percent above average and 38 percent above last year.

Streamflow Forecasts - January 1, 1997

Forecast Pt Forecast Period	<== Drier == Future Conditions == Wetter ==> Chance of Exceeding * 90% (1000AF)	70% (1000AF)	50% (Most Prob) (1000AF)	(% AVG.)	30% (1000AF)	10% (1000AF)	30 Yr Avg (1000AF)
SUN RIVER at Gibson Dam (2)							
APR-JUL	548	659	735	154	811	922	478
APR-SEP	614	731	810	154	889	1006	526
TWO MEDICINE RIVER near Browning (2)							
APR-JUL	216	275	315	147	355	414	215
APR-SEP	231	290	330	145	370	429	228
BADGER CREEK near Browning (2)							
APR-JUL	89	117	135	130	153	181	104
APR-SEP	111	140	160	133	180	209	120
SWIFT RESERVOIR Inflow near Dupuyer							
APR-JUL	52	74	89	131	104	126	68
APR-SEP	67	90	105	131	121	143	80
DUPUYER CREEK near Valier							
APR-JUL	7.5	18.5	26	168	34	45	15.5
APR-SEP	9.4	21	29	167	37	49	17.4
CUT BANK CREEK at Cut Bank							
APR-JUL	96	122	140	161	158	184	87
APR-SEP	109	137	155	162	174	201	96
MARIAS RIVER near Shelby (2)							
APR-JUL	432	589	695	156	801	958	447
APR-SEP	560	642	750	154	858	1237	487

* 90%, 70%, 30%, and 10% chances of exceeding are the probabilities that the actual flow will exceed the volumes in the table.

The average is computed for the 1961-1990 base period.

(1) - The values listed under the 10% and 90% Chance of Exceeding are actually 5% and 95% exceedance levels.
(2) - The value is natural flow - actual flow may be affected by upstream water management.

Reservoir Storage (1000AF) End of December

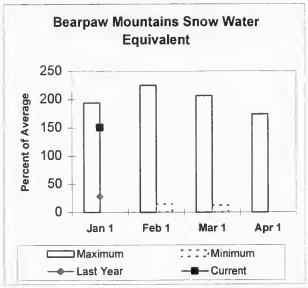
Reservoir	Usable Capacity	********** Usable Storage ********** This Year	Last Year	Average
GIBSON	99.1	35.5	51.6	41.0
PISHKUN	32.0	35.8	20.7	17.9
WILLOW CREEK	32.2	5.0	25.6	20.8
LOWER TWO MEDICINE LAKE	11.9	4.0	10.5	6.5
FOUR HORNS LAKE	19.2	12.3	7.3	12.4
SWIFT	30.0	13.1	25.6	13.8
LAKE FRANCES	112.0	71.4	95.3	69.6
LAKE ELWELL (TIBER)	1347.0	745.2	874.3	590.6

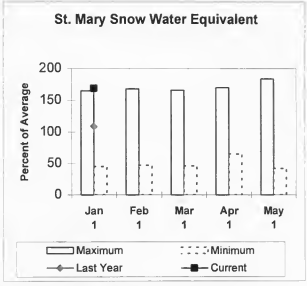
Watershed Snowpack Analysis - January 1, 1997

Watershed	Number of Data Sites	This Year as Percent of Last Year	Average
SUN	2	170	192
TETON	3	179	184
MARIAS	4	181	190
SUN-TETON-MARIAS	7	180	192
MISSOURI MAINSTEM abv FT PEC	23	190	179
MISSOURI RIVER BASIN	61	178	188

St. Mary and Milk River Basins

Snowpack conditions in the St. Mary and Milk River Basins were well above average. Snow water content in the Saint Mary River Basin was 69 percent above average and 56 percent above last year. This has set a new record that was previously set in 1991 and was 65 percent above average. The Milk River Basin (Bearpaw Mountains) was 51 percent above average and 341 percent above last year.

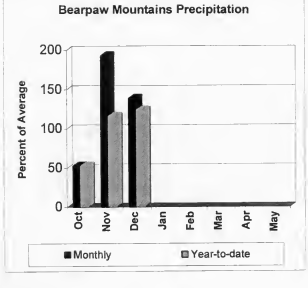


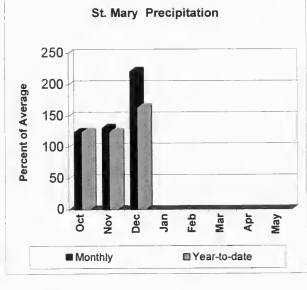


Bearpaw - January maximum swe was established in 1978 and minimum swe was in 1981; February maximum swe was 1978 and minimum was in 1973; March maximum swe was 1978 and minimum swe was 1981; April maximum swe was in 1975 and minimum swe was in 1983; May maximum swe wa 1975 and the minimum has ocurred in several years. Average is for the period 1961 through 1990.

St. Mary - January maximum swe was established in 1991 and minimum swe was in 1988; February maximum swe was in 1972 and minimum swe was in 1977; March maximum swe was in 1972 and minimum swe was in 1977; April maximum swe was in 1972 and minimum swe was in 1992; May maximum swe was in 19972 and minimum swe was in 1977; and June maximum swe was in 1991 and minimum swe was 1992. Average is for the period 1961 through 1990.

Mountain and valley precipitation in the St. Mary River Basin during December was 121 percent above average and 112 percent above last year; and in the Milk River Basin during December was 39 percent above average and 15 percent above last year. Mountain and valley water year precipitation, beginning October 1, 1996, was 49 percent above average and 14 percent below last year.





Reservoir storage on the last day of December was 11 percent above average and 16 percent below last year. Lake Sherburne storage was 17 percent above average and 18 percent below last year; Fresno storage was 22 percent above average and 8 percent below last year; Beaver Creek storage was 56 percent above average and 33 percent above last year; and Nelson storage was 11 percent below average and 28 percent below last year.

Streamflows in the St. Mary are forecast to be 7 percent above average and 15 percent above last year; and in the Milk are forecast to be 11 percent above average and 21 percent above last year.

Streamflow Forecasts - January 1, 1997

Forecast Pt Forecast Period	<== Drier == 90% (1000AF)	70% (1000AF)	Future Conditions Chance of Exceeding * 50% (Most Prob) (1000AF)	(% AVG.)	== Wetter ==> 30% (1000AF)	10% (1000AF)	30 Yr Avg (1000AF)
SWIFTCURRENT CREEK at Sherburne (2)							
APR-JUL	87	101	110	103	119	133	107
APR-SEP	101	115	125	100	135	149	125
ST. MARY RIVER near Babb							
APR-JUL	388	425	450	114	475	512	395
APR-SEP	453	496	525	113	554	597	463
ST. MARY RIVER at US/CAN Border (2)							
APR-JUL	371	430	470	102	510	569	462
APR-SEP	470	535	580	108	625	690	539
MILK RIVER at Western Crossing							
MAR-JUL	29	40	48	109	56	67	44
MAR-SEP	33	44	52	113	60	71	46
MILK RIVER at Eastern Crossing (2)							
MAR-JUL	32	66	88	110	111	144	80
MAR-SEP	36	71	95	108	119	154	88
BEAVER CREEK near Havre							
MAR-JUL	2.8	8.6	12.5	121	16.4	22	10.3

* 90%, 70%, 30%, and 10% chances of exceeding are the probabilities that the actual flow will exceed the volumes in the table.

The average is computed for the 1961-1990 base period.

(1) - The values listed under the 10% and 90% Chance of Exceeding are actually 5% and 95% exceedance levels.
(2) - The value is natural flow - actual flow may be affected by upstream water management.

Reservoir Storage (1000AF) End of December

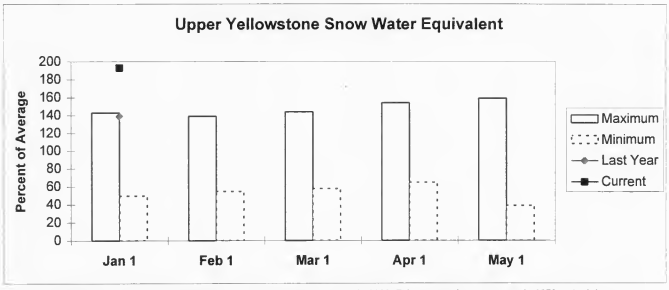
Reservoir	Usable Capacity	********** Usable Storage This Year	Last Year	********* Average
LAKE SHERBURNE	64.3	24.6	30.0	21.1
FRESNO	127.0	64.8	70.5	53.1
BEAVER CREEK	3.5	2.8	2.1	1.8
NELSON	66.8	33.9	47.4	38.0

Watershed Snowpack Analysis - January 1, 1997

Watershed	Number of Data Sites	This Year as Percent of Last Year	Average
ST. MARY	2	156	169
BEARPAW MOUNTAINS	6	441	151
CYPRESS HILLS, CANADA	0	0	0
MILK RIVER BASIN	6	441	151
ST. MARY & MILK BASINS	8	189	164

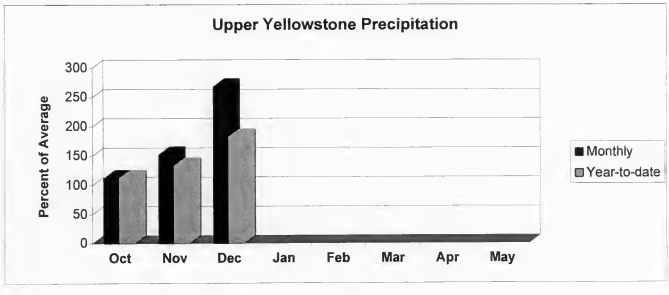
Upper Yellowstone River Basin

Snowpack conditions in the Upper Yellowstone River Basin were well above average. Snow water content was 93 percent above average and 41 percent above last year. This has set a new record that was previously set in 1976 and was 43 percent above average.



January maximum swe was established in 1976 and minimum swe was in 1988; February maximum swe was in 1972 and minimum swe was in 1977; March maximum swe was in 1971 and minimum swe was in 1977; April maximum swe was in 1971 and minimum swe was in 1981; May maximum swe was in 1971 and minimum swe was in 1987; and June maximum swe was 1982 and minimum swe was in 1987 and 1994. Average is for the period 1961 through 1990.

Mountain precipitation during December was 170 percent above average and 158 percent above last year. Valley precipitation during December was 127 percent above average and 300 percent above last year. Mountain and valley water year precipitation, beginning October 1, 1996, was 82 percent above average and 26 percent above last year.



Reservoir storage on the last day of December was 4 percent above average and 5 percent above last year. Mystic Lake storage was 29 percent below average and 5 percent below last year and Cooney storage was 4 percent above average and 5 percent above last year.

Streamflows are forecast to be 47 percent above average and 27 percent above last year.

Streamflow Forecasts - January 1, 1997

Forecast Pt / Forecast Period	<=== Drier === Future Conditions === Wetter ===> Chance of Exceeding * 90% (1000AF)	70% (1000AF)	50% (Most Prob) (1000AF)	(% AVG.)	30% (1000AF)	10% (1000AF)	30 Yr Avg (1000AF)
YELLOWSTONE RIVER at Corwin Springs							
APR-JUL	2152	2347	2480	154	2613	2808	1609
APR-SEP	2601	2839	3000	155	3161	3399	1937
YELLOWSTONE RIVER near Livingston							
APR-JUL	2480	2718	2880	155	3042	3280	1855
APR-SEP	3026	3308	3500	156	3692	3974	2241
SHIELDS RIVER near Livingston							
APR-JUL	182	222	250	154	278	318	162
APR-SEP	205	247	275	154	303	345	179
BOULDER RIVER at Big Timber							
APR-JUL	393	436	465	139	494	537	335
APR-SEP	431	475	505	139	535	579	364
WEST ROSEBUD CREEK near Roscoe (2)							
APR-JUL	66	75	80	131	86	94	61
APR-SEP	89	99	105	133	111	121	79
STILLWATER RIVER nr Absarokee (2)							
APR-JUL	512	609	675	136	741	838	498
APR-SEP	626	730	800	135	870	974	593
CLARKS FORK RIVER near Belfry							
APR-JUL	584	668	725	136	782	866	532
APR-SEP	655	747	810	137	873	965	590
RED LODGE CREEK blw Cooney Res (2)							
APR-JUL	35	53	65	138	77	95	47
APR-SEP	45	63	75	132	87	105	57
YELLOWSTONE RIVER at Billings (2)							
APR-JUL	4208	4751	5120	143	5489	6032	3577
APR-SEP	5137	5691	6100	145	6509	7074	4211

* 90%, 70%, 30%, and 10% chances of exceeding are the probabilities that the actual flow will exceed the volumes in the table.

The average is computed for the 1961-1990 base period.

(1) - The values listed under the 10% and 90% Chance of Exceeding are actually 5% and 95% exceedance levels.
(2) - The value is natural flow - actual flow may be affected by upstream water management.

Reservoir Storage (1000AF) End of December

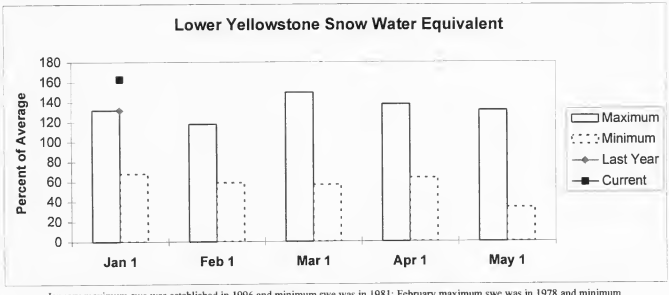
Reservoir	Usable Capacity	********** Usable Storage ********* This Year	Last Year	Average
MYSTIC LAKE	21.0	8.2	8.6	11.6
COONEY	27.4	18.4	16.8	14.0

Watershed Snowpack Analysis - January 1, 1997

Watershed	Number of Data Sites	This Year as Percent of Last Year	Average
YELLOWSTONE abv LIVINGSTON	12	140	201
SHIELDS	4	232	198
BOULDER-STILLWATER	3	142	171
CLARK'S FORK-ROCK CREEK	9	122	191
UPPER YELLOWSTONE RIVER	25	141	193

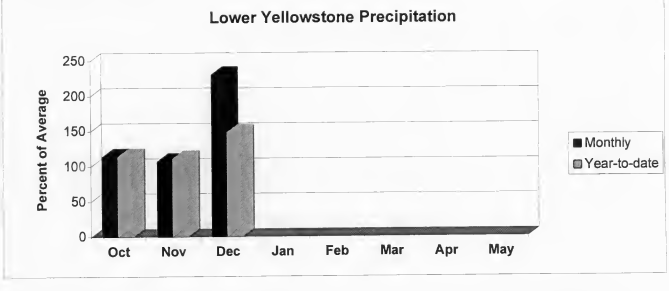
Lower Yellowstone River Basin

Snowpack conditions in the Lower Yellowstone River Basin, in Wyoming, were well above average. Snow water content was 63 percent above average and 24 percent above last year. This has set a new record that was previously set in 1996 and was 32 percent above average.



January maximum swe was established in 1996 and minimum swe was in 1981; February maximum swe was in 1978 and minimum swe was in 1981; March maximum swe was in 1986 and minimum swe was in 1977; April maximum swe was in 1986 and minimum swe was in 1981; May maximum swe was in 1986 and minimum swe was in 1981; and June maximum swe was in 1995 and minimum swe was in 1994. Average is for the period 1961 through 1990.

Mountain and valley precipitation during December was 130 percent above average and 180 percent above last year. Mountain and valley water year precipitation, beginning October 1, 1996, was 48 percent above average and 18 percent above last year.



Reservoir storage on the last day of December was 1 percent below average and 2 percent below last year. Bighorn Lake storage was at average and 2 percent below last year and Tongue River storage was 33 percent below average and 23 percent below last year (The Tongue Dam is under construction and will be below average storage through construction).

Streamflows are forecast to be 52 percent above average and 50 percent above last year.

Streamflow Forecasts - January 1, 1997

Forecast Pt / Forecast Period	<== Drier == Future Conditions == Wetter ==> Chance of Exceeding * 90% (1000AF)	70% (1000AF)	50% (Most Prob) (1000AF)	(% AVG.)	30% (1000AF)	10% (1000AF)	30 Yr Avg (1000AF)
YELLOWSTONE RIVER at Billings (2)							
APR-JUL	4208	4751	5120	143	5489	6032	3577
APR-SEP	5137	5691	6100	145	6509	7074	4211
BIGHORN RIVER nr St. Xavier (2)							
APR-JUL	2228	2503	2690	164	2877	3152	1645
APR-SEP	2317	2778	3000	166	3222	3566	1810
LITTLE BIGHORN RIVER nr Hardin							
APR-JUL	78	136	175	125	214	272	140
APR-SEP	59	154	197	126	240	292	156
TONGUE RIVER stateline nr Decker (2)							
APR-JUL	160	213	250	109	287	340	230
APR-SEP	135	232	270	108	308	375	250
YELLOWSTONE RIVER at Miles City (2)							
APR-JUL	6771	7682	8300	153	8918	9829	5431
APR-SEP	7800	8872	9600	153	10328	11400	6281
POWDER RIVER at Moorhead							
APR-JUL	112	170	210	100	250	308	211
APR-SEP	77	192	232	100	272	362	232
POWDER RIVER near Locate							
APR-JUL	134	197	240	95	283	346	252
APR-SEP	74	211	260	95	309	410	275
YELLOWSTONE RIVER nr Sidney (2)							
APR-JUL	7250	8292	9000	152	9708	10750	5925
APR-SEP	7651	8955	9800	150	10645	11770	6539

* 90%, 70%, 30%, and 10% chances of exceeding are the probabilities that the actual flow will exceed the volumes in the table.

The average is computed for the 1961-1990 base period.

(1) - The values listed under the 10% and 90% Chance of Exceeding are actually 5% and 95% exceedance levels.
(2) - The value is natural flow - actual flow may be affected by upstream water management.

Reservoir Storage (1000AF) End of December

Reservoir	Usable Capacity	********** Usable Storage ********* This Year	Last Year	Average
BIGHORN LAKE	1356.0	894.3	912.2	891.8
TONGUE RIVER	68.0	17.3	22.4	26.0

Watershed Snowpack Analysis - January 1, 1997

Watershed	Number of Data Sites	This Year as Percent of Last Year	Average
WIND RIVER (Wyoming)	12	131	179
SHOSHONE RIVER (Wyoming)	5	115	197
BIGHORN RIVER (Wyoming)	15	118	161
LITTLE BIGHORN (Wyoming)	2	123	113
TONGUE RIVER (Wyoming)	5	110	127
POWDER RIVER (Wyoming)	6	134	136
LOWER YELLOWSTONE RIVER	29	124	163
YELLOWSTONE RIVER BASIN	51	134	177

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Montana
Basin Outlook Report

Natural Resources Conservation Service
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